



TRB PERFORMANCE MEASUREMENT COMMITTEE NEWSLETTER

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Disclaimer:

The PMC Newsletter is sponsored by contributors submitting Performance Measurement related articles to the editor and do not reflect the views of the Performance Measurement Committee or Transportation Research Board.

MINNESOTA DEVELOPS PERFORMANCE-BASED STATEWIDE TRANSPORTATION PLAN

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In the 2003 update of its statewide transportation plan, the Minnesota Department of Transportation developed a comprehensive, performance-based planning approach for guiding future investment

decisions.

The plan's foundation is Mn/DOT's Strategic Plan, which includes three Strategic Directions: (1) safeguard what exists, (2) make the network operate better, and (3) make Mn/DOT work better. A policy framework was developed to implement these directions,
(continued on pg. 2)

MESSAGE FROM THE CHAIR

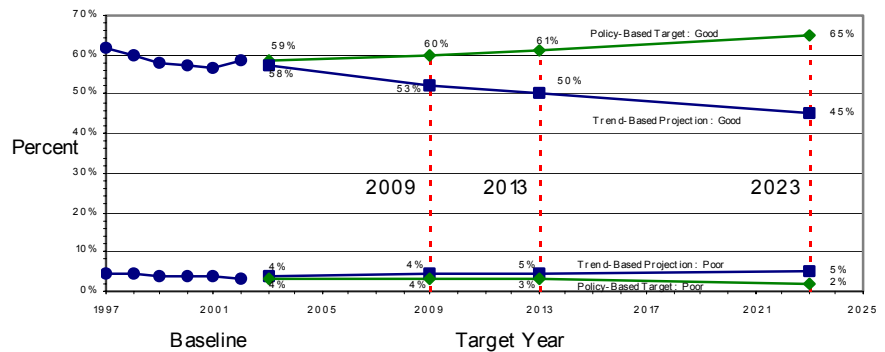
Earlier this year the TRB Committee on Performance Measurement was established as a permanent standing committee. We are pleased to distribute our first Newsletter which we intend to publish twice a year. A key objective of the Committee is to serve as a clearinghouse for information about performance measurement and this newsletter will be one of the vehicles we use to achieve that objective. The Committee's interest in performance measurement is broad and includes organizational effectiveness, transportation system performance and customer satisfaction. We have included in this newsletter a draft of the Committee's proposed mission statement and scope. (**See Pg. 7 for draft strategic plan**) Since many other Committees have been involved with different aspects of performance measurement, we will focus our agenda to avoid duplication and address the many areas of performance measurement that need attention and which are not the focus of other activities. However, the intent of the newsletter is to provide information including articles, announcements on upcoming meetings, updates on legislative or policy developments to the broad community interested in performance measurement irrespective of whether the Committee on Performance Measurement is involved. We will proactively reach out to other committees and organizations, develop and maintain as comprehensive a mailing list as possible and periodically solicit contributions to this newsletter. We invite anyone interested to be on the mailing list and would welcome contributions and material for the next newsletter to be published in the late spring of 2003. ♦

- Lance Neumann

resulting in 10 policies that considered the entire network of transportation systems, including: system infrastructure and services, system management and operations, system preservation and expansion, the movement of people and freight, and the range of competitive travel choices. For each of the 10 policies, desired outcomes were defined and a set of policy-based multi-modal performance measures and targets were developed. The development process involved technical expert offices and modal offices, planning organizations and regulatory agencies. After assessing nearly 200 potential measures, 32 performance measures were developed for four major modal groups: 1) highways and bridges; 2) bus and rail transit, and bicycle/pedestrians; 3) freight: motor carriers, railroad and waterways; and 4) aeronautics.

The following criteria were used to select the set of performance measures for the MnDOT Statewide Transportation Plan.

- They must have statewide significance, measuring either a system-wide attribute or an essential element of a mode or department function
- They must meaningfully measure



Sample Target Setting Graphic:
Percent of Bridges with Structural Bridge
Condition Rating of
"Good" and "Poor"

a key outcome of the Statewide Plan Policy Framework.

- Together they must represent all major functions, modes and customer segments for which MnDOT delivers a transportation service.
- They should cover outcomes over which MnDOT has direct or indirect influence, so that we can manage them and be held accountable for achieving them.
- They should measure an attribute that is important to customers and stakeholders.

Twenty year targets were set for the performance measures. In setting performance targets, trend-based projections were

used to estimate future levels of performance, based on an extrapolation of recent trends. Twenty-year targets were set to achieve desired performance levels, based on policy or customer expectations, as determined through market research. In addition, the degree to which MnDOT could control or influence the outcome, affected the target.

For example, MnDOT has only limited influence over the number of fatalities in the state. Driver behavior is a major contributing factor outside MnDOT control. Thus, the target for reducing fatalities reflected MnDOT's more limited role in this area. Finally, long-term targets were not constrained by current funding levels. None the less, they are intended to be realistically attainable under some reasonably achievable future-funding scenario.

Mn/DOT's Statewide Transportation Plan is its first comprehensive long-range performance based plan. While a period of monitoring, refining and continuous re-evaluation is likely to follow, the department

is committed to this path. Mn/DOT expects that using performance measures to identify transportation system needs will result in greater public understanding of our long-term transportation

direction and long-range investments that provide direct benefits to Mn/DOT's customers. ♦

- Abigail McKenzie

Integrating Performance and Budget

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Managerial Cost Accounting

Managerial cost accounting provides opportunities for agencies to make business process improvements by linking agency outputs to strategic performance objectives. It helps integrate performance and budget, justify budget requests and maintain accountability in the financial management system. Cost accounting can monitor an agency's cost patterns, identify drivers of those costs, manage indirect costs, track labor, and forecast critical costs for the agency. Indeed, cost accounting can serve as a method for managers to select where they should cut costs or increase future budget allocation. It helps states manage their grants while ensuring they meet Federal mandates and agency objectives. Because cost accounting encourages funds to be used in relation to program performance, Congress is able to deliver more with the same amount of resources to the American people.



to improved program performance and reflect savings derived from competitive sourcing. Legislatively, the 1990 Chief Financial Officers (CFO) Act indicates that an agency should maintain an integrated accounting and financial management system that reports cost information. This helps organizations assess their programs in

relation to strategic goals. The Government Performance and Results Act (GPRA) of 1993 legislates that agencies must have strategic and annual performance plans starting 1999. Moreover, the Federal Financial Management Improvements Act (FMFIA) of 1996 requires Federal agencies to have accounting standards and reporting objectives for their financial management system, so that assets, liabilities, expenses and revenues can be monitored uniformly throughout the Federal government.

DOT's Performance Based Budgeting

Integrating performance and budget helps future budget formulation and present financial management by tracking distribution of costs. In this light, the Department of Transportation (DOT) includes cost accounting as one of the measures for having "good financial management" in its *Scorecard Method* of tracking and ranking how modal offices are performing to improve their financial management systems.

The President's Management Agenda

Having a balanced *scorecard*, activity-based budgeting, and performance-based resource

Legislative Mandates

The President's Management Agenda for fiscal year 2002 calls for government organizations to implement managerial cost accounting to improve their financial management. The Agenda states that integrating budget and performance will lead

planning give an agency the opportunity to integrate customer values into managerial decision making. Tracking costs by activities instead of the traditional object classes such as salaries, printing, maintenance, supplies, and equipment helps achieve the mandates of GPRA that focuses federal programs on performance. The President's Management Agenda states that in the 2003 Budget, the Administration will establish performance targets for programs with funding levels. The long-term goals of the Presidential Agenda are to have better control over Federal

government resources and for management to have accountability for its activities. A good, working cost accounting system should allow the agency to be results-driven and have performance-based budgeting. Results and performance should be synonymous, not mutually exclusive. ♦

For more information on DOT's effort in integrating performance with budget, please contact Kristine Lee Leiphart at DOT's Office of the Secretary (OST), Office of Budget and Financial Management, at Kristine.Leiphart@ost.dot.gov.

-Kristine Leiphart

Two Key Performance Measures to Rationalize the Management of Growing Traffic Congestion

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In transportation, mobility is a term used to express the capability and ease of a person traveling, or of freight being moved. Key variables impacting mobility include travel time and cost (door-to-door), safety and security, and travel comfort/convenience. The shorter the travel time, the lower the travel costs, the more secure and safe the journey, the more comfortable and convenient the mode, the more trips will be made and the longer they will be.

Most Americans maximize their mobility by owning a car. Since 1970, automobile ownership and VMT have more than doubled while the population increased by about one third (1). This increased mobility has resulted in more congested highways, with volume levels increasing at a faster rate than

our ability to add capacity to the highway system.

The negative impact of congestion on mobility can best be evaluated by using the concept of the *travel time budgets* first formulated by Zahavi (2) and confirmed by others (3) who found that travelers across different urban areas and times have maintained a stable travel time budget. Thus travel distance can be used as an effective performance measure of mobility: with a fixed amount of daily time budgeted for traveling, the person that can travel a longer distance at the end of the day, is more mobile than the one who travels a shorter distance.

The Problem

In spite of the resources invested in increasing the efficiency of the highway



system (ITS, etc.) and the various measures implemented (and being proposed) to

reduce the use of the private car (car pooling programs, adding transit supply, etc.), results achieved to date indicate that automobile usage will not diminish to the levels needed to control congestion (4) within tolerable bounds.

In addition, any measures to bring down congestion that limit car usage are likely to find political resistance. This is because any measures that reduce the use of the automobile will be seen as reducing personal mobility (the travel distance covered by the other modes will be shorter, and fewer trips will be made).

Managing Congestion

It has long been formally recognized (by ISTEA) that we can no longer build our way out of congestion – traffic and

transportation engineers have exhausted every tool in their toolbox to mitigate congestion.

What needs to be done is to *learn how to live with increasing congestion.*

It is useful to recall that a key end-outcome of investments in urban transportation systems is to connect people and businesses to the region's opportunities (jobs, shopping, entertainment, education, etc.) in the shortest possible time. Maximizing the efficiency of this connection, therefore, is a core objective of transportation investments. The efficient mobility of people and freight is only *one* of *two* components needed to achieve this end outcome. The *other* component is the number and distribution of destination opportunities that can be reached within an acceptable travel time/cost budget.

By combining these two

performance measures -- travel distance (within a desired travel time) and the number of destination opportunities reachable within said travel distance -- it is



possible to evaluate the economic and social impacts of reduced mobility.

To mitigate the problem of decreased mobility (the reduction in the daily distance a traveler can cover within a fixed travel time budget), we would need to increase the number of accessible opportunities by promoting "smart growth" policies that permit higher density of development, clustering and mixing of land uses. This implies better coordination of transportation policy with land use policy. But the historical separation of powers between local (land use) and regional/state (transportation) governments have proven an impenetrable political and legal barrier to transportation-land use coordination. However, it is clear

that in continuing with the status quo (higher congestion/reduced mobility/reduced access to opportunities) we may soon reach intolerable levels of

service, as travel time reliability becomes more of a problem for the mobility of travelers and freight.

This emerging condition, however, may present unique opportunities to promote smart growth policies. Recognizing that managing land development growth (type, density, mix) at the local and regional levels, is a key factor in mitigating the negative impact of decreasing mobility on accessible opportunities, MPOs should be mandated to undertake programs aimed at inventorying land use to establish baseline data on accessible opportunities and to monitor changes in accessible opportunities over time. This activity would provide needed information to assist decision makers in formulating more effective policies for managing traffic congestion.

SUMMARY OF KEY POINTS

1. As VMT increases congestion increases.
2. Increasing highway congestion reduces mobility because travelers will be covering a shorter distance within a fixed travel time budget.

Article Submission

The Performance Measurement Committee Newsletter is intended to be distributed via e-mail, semi-annually. Areas within the newsletter will include: a message from the chair, information on upcoming conferences and meetings, information on the activities of other committees relative to PM, articles on performance measurement, and a forum for open questions and communication. The deadline for articles for the next edition will be March 20, 2003 emailed to mtierney@state.mt.us and should be no longer than 500 words. Word compatible graphics are encouraged and embedded web links or email addresses are fine.

3. Areas with a growing economy, population, and personal incomes, will become more congested with time because highway capacity will not keep up with increasing VMT.
4. As people and businesses relocate from congested areas to less congested areas, they will experience higher mobility. But pre-existing travel in these areas will become more congested because of these new and transferred trips and hence will experience lower mobility.
5. Transportation engineers will not be able to solve the negative impact of the highway congestion problem with transportation solutions alone: as long as VMT grows faster than capacity, congestion will also grow.
6. Since in the long run, congestion cannot be

reduced, it needs to be managed:

- a) The negative impact of reduced mobility is a reduction in travel distance.
- b) Reduced travel distance also reduces the number of destination opportunities that travelers seek to maximize.
- c) By combining the *travel distance* with *number of destination opportunities* reachable within said travel distance, makes it possible to evaluate the economic and social impacts of reduced mobility.

References

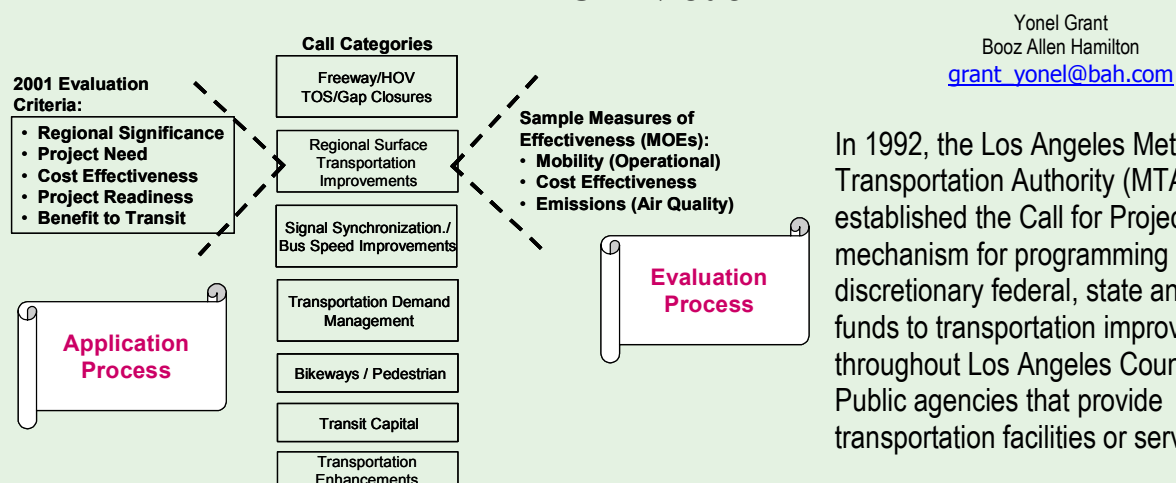
1. National Governors Association, Report No.2, "In the Fast Lane:

Delivering More Transportation Choices to Break Gridlock", www.nga.org/Center.

2. Zahavi, Y., Travel Time Budgets and Mobility in Urban Areas, US Department of Transportation, Federal Highway Administration, FHWA PL 8183, May 1974.
3. Organization for Economic Co-operation and Development, Transport Requirements for Urban Communities: Planning for Personal Travel, Annex C, Paris, 1977.
4. Schrank, DL and Lomax, TJ, Urban Roadway Congestion – 1982 to 1993, Research Report 1131-8, Texas Transportation Institute, The Texas A&M University System, August 1993. ♦

-John C. Falcocchio

Real World Application for Performance Measures - Evaluating the Los Angeles MTA Call for Projects Program RSTI Mode



In 1992, the Los Angeles Metropolitan Transportation Authority (MTA) established the Call for Projects – a mechanism for programming discretionary federal, state and local funds to transportation improvements throughout Los Angeles County. Public agencies that provide transportation facilities or services

within Los Angeles County are eligible to submit capital project applications. This includes cities, the County of Los Angeles, the State of California, and public transportation joint powers authorities.

Prior to 1999, the MTA required all Call for Project Regional Surface Transportation Improvement (RSTI) funding recipients to perform before and after studies for each funded project. Projects in this category are as diverse as intersection and ramp improvements, as well as grade separation and goods movement projects. In 2001, the MTA programmed over \$150 million through the RSTI Call. Beginning with the 1999 Call for Projects, the MTA assumed responsibility for conducting project performance evaluations to ensure that all analyses are performed and conducted in a consistent and coordinated manner by an objective third party. The MTA Long Range Transportation Plan recommends conducting an evaluation of previously-funded RSTI Call for Projects to assess project performance and to assist with future funding decisions.

MTA contracted with Booz Allen Hamilton for evaluation of RSTI projects. Booz Allen is charged with the development of an ongoing performance monitoring framework to more effectively evaluate benefits across projects types (e.g., methodologies, standardized performance measures) and to gauge project effectiveness over time. The study focuses on both the evaluation and application aspects as shown above (left corner).

The 18-month study (July 2001 to February 2003) includes developing a base framework for performance evaluation, applying the framework to previously funded and completed projects, and finalizing both framework and benefit/cost analyses. Definitive project findings and conclusions will be available in 2003. ♦

Contributed by Yonel Grant, Project Manager from Booz Allen Hamilton and Jon Grace, Project Manager for MTA. They can be reached at grant_yonel@bah.com and gracej@mta.net.

-Yonel Grant

***DRAFT STRATEGIC PLAN
TRANSPORTATION RESEARCH BOARD
COMMITTEE ON PERFORMANCE MEASUREMENT (A5022)***

(NOTE: This draft plan along with actions to support it will be discussed at the committee's meeting on Wednesday January 15)

MISSION: The mission of the TRB Performance Measurement Committee is to advance the capabilities of public and private transportation organizations and their leaders through the effective use of performance measurement by developing and sharing knowledge in the field of transportation performance measurement.

SCOPE: The Committee is concerned with the development and use of performance measurement across all modes of transportation, public and private, including passenger and freight transportation systems. The Committee considers the use of performance measurement in all aspects of an organization's mission including planning, programming, budgeting, program and service delivery and operations. The scope includes measurement with regard to organizational effectiveness, system performance and customer satisfaction. The Committee focus is on methods for establishing performance measurement, data needs, data collection and analysis methods, use of performance measurement in supporting decisions, and implementing performance measurement systems in transportation organizations. The Committee also serves as the principal TRB clearinghouse for the exchange of information among TRB committees and others concerned with the various aspects of performance measurement.

GOALS:

1. To continuously foster and contribute to the research, development, and implementation of performance measurement in transportation organizations.

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2. To contribute significantly to improved communications and dissemination of research findings and best practices in performance measurement implementation (including international developments) that are applicable to transportation organizations.
 3. To enhance the understanding and skills of transportation leaders and professionals in the art and science of performance measurement.
 4. To show how performance measurement can influence decision-making and help address critical transportation issues.

STRATEGIES:

1. Define transportation research needs in performance measurement and advocate for the conduct of research and the development of syntheses for these research problem areas.
2. Solicit and review papers on performance measurement for TRB publication and presentation.
3. Communicate widely the research findings, best practices, ongoing research, and related information on performance measurement by using a broad range of information activities and peer exchanges.
4. Create and sponsor TRB sessions on performance measurement at annual and mid-year TRB meetings and actively seek to co-sponsor sessions on related topics.
5. Sponsor or actively participate in workshops, training, and other special events that promote the development and implementation of performance measurement in transportation, and develop circulars and other products from these events for dissemination.
6. Promote participation in committee activities with a diverse membership and a large network of friends, with representation from all modes of transportation and a variety of transportation organizations.
7. Serve as a clearinghouse function, through cooperative approaches with related TRB committees and other organizations, so that the transportation community knows the full range and crosscutting nature of performance measurement activities. ♦

-Other Studies & Selected Performance Measurement Research-

GAO Completes Performance Measurement Study

In August 2002, the GAO released a report GAO-02-862 to Congressional Subcommittees titled, Results-Oriented Cultures: Insights for U.S. Agencies from Other Countries' Performance Management Initiatives. In this Study, the GAO highlights the performance practices of human capital management used in Australia, Canada, New Zealand, and the United Kingdom specifically

detailing performance practices in the following areas:

- Creating a “line of site between individual and organizational goals.
- Using competencies to provide a fuller assessment of individual performance.
- Linking pay to individual and overall organizational performance.
- Fostering organizational commitment to results-oriented performance management.

The Study can ordered by Mail or Phone. The first copy of each printed report is free. Additional copies are \$2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and MasterCard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to:

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**NCHRP
RESEARCH PROJECT STATEMENT
Project 3-68, FY 2003**

**Guide to Effective Freeway Performance
Measurement
(Posted date: 8/21/02)**

In order to effectively serve the traveling public, most transportation agencies have objectives related to the performance of the freeway system. Performance measurement uses statistical information to determine if these objectives are being met. Freeway traffic management systems collect data for operating the facility that can also



be used to support performance measurement. But traffic management systems are not the only source of data that can support performance measurement. Planning departments also collect data on system performance and leveraging these

two data sources is highly desirable. The Project Scope can be found at this link:

<http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+3-68>

**National Cooperative Highway Research
Program - Completed Project**

**Project 3-55(4), FY 1995
Performance Measures and Levels of Service in
the Year 2000 Highway Capacity Manual**

The Transportation Research Board (TRB) Committee on Highway Capacity and Quality of Service (HCQS) intends to publish a new version of the Highway Capacity Manual by the year 2000 (HCM 2000). There is a critical need to enhance the system of performance measures, measures of effectiveness (MOEs), and levels of service (LOSs) to be provided in the new version of the Manual. Details of the project can be found at the following link:

[http://www4.nationalacademies.org/trb/crp.nsf/All+Projects/NCHRP+3-55\(4\)](http://www4.nationalacademies.org/trb/crp.nsf/All+Projects/NCHRP+3-55(4))

**National Cooperative Highway Research
Program - Active Project**

**Project 8-43, FY 2002
Methods for Forecasting Statewide Freight
Movements and Related Performance
Measures**

According to the U.S. Department of Transportation, the volume of freight moved within the United States has nearly doubled the rate of population increase over the past three decades. In those years, this volume has also outstripped the annualized rates of growth in disposable income and gross national product. The 1997

Commodity Flow Survey, by the Bureau of the Census, found that more than 11 billion tons of freight, valued at almost \$7 trillion, moves annually over the nation's transportation system. In calendar year 1997, there was nearly 3 trillion ton-miles of

annual freight activity. All of this activity places growing pressure on each state's transportation infrastructure, leading to many costly traffic congestion problems--notably around major airports, seaports, and truck-rail transfer terminals. The increase in the number of trucks is also changing the traffic flow characteristics on some highways, especially as they approach their design capacities. Significant changes have also been taking place in the spatial patterns and commodity mix of both domestic and international trade. Modern logistic practices and the rapid growth in e-commerce are now also influencing these patterns. The remainder of the project description can be found at the following link:

<http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+8-43>

***National Cooperative Highway Research
Program - Completed Project***

Project 8-32(2), FY 1994

***Multimodal Transportation: Development of a
Performance-Based Planning Process***

Transportation planning is commonly practiced along modal lines and often fails to address the needs of multimodal and intermodal (hereafter referred to as multimodal only) transportation for both passengers and freight. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) emphasizes a shift from project-oriented modal solutions to a fully integrated multimodal mix of solutions within the context of overall societal goals. Given this emphasis, transportation planning must address a broader concept of multimodal transportation system performance. Future transportation demand and its interaction with social, environmental, economic, and quality-of-life issues need to be examined within a new conceptual framework. This framework must recognize, at a minimum, distinctions between mobility and access and between trips and trip components across all modes for both passengers and freight, as well as account for new technologies and their impact on providing transportation services and measuring performance. This framework must ensure that

multimodal transportation planning addresses performance from a systems-based approach and that it is not solely a process-oriented tool for measuring planning achievements but rather a system wide tool for measuring the performance of transportation in a total system concept. The remainder of the project description can be found at the following link:

[http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+8-32\(2\)](http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+8-32(2))

***National Cooperative Highway Research
Program - Pending Project***

Project 20-60, FY 2003

***Performance Measures and Targets for
Transportation Asset Management***

Although concepts of asset management are applicable throughout a transportation agency to support decision making, for purposes of providing focus and a starting point, transportation asset management, under NCHRP Project 20-24(11), is currently being defined as a strategic approach to managing transportation infrastructure. Therefore, under this definition and for purposes of this research, transportation asset management promotes more effective allocation and use of resources to address preservation, operation, and improvement of transportation infrastructure.

Many transportation agencies have developed system-level performance measures to help track the impacts of program investments, maintenance, and operations improvements. These performance measures are usually technical in nature, capturing an engineering or operational attribute of the transportation system. A review of these measures is needed to assess their usefulness for asset management (e.g., their application in tradeoff analyses and investment decisions). The development or further refinement of measures for more non-technical (e.g., security, social, environmental, and economic) issues affecting transportation decisions is also needed.

In addition, some transportation agencies define targets with which current conditions can be

objectively compared to determine whether the transportation system is performing acceptably. The basis on which these targets are set varies, and there is no generally accepted methodology or framework for their establishment and use in an asset management context. Guidance for establishing performance targets for use by transportation agencies is needed.

The remainder of the project description can be found at the following link:

<http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+20-60>

National Cooperative Highway Research Program - Active Project

Project 20-57, FY 2002

Analytic Tools to Support Transportation Asset Management

Transportation agencies wishing to improve the management of a wide range of assets may be constrained by analytic limitations of their legacy management systems and existing business practices. Management systems put in place some time ago often lack decision-support capabilities such as economic optimization of investment alternatives, customized decision rules, or estimates of costs and benefits accruing to customers. Current systems procedures in planning, program development, and program delivery may not be geared to investigation of the full range of investment options or to the analyses needed to compare and conduct tradeoffs among alternatives. While initial steps may have already been taken to define

performance measures, some agencies may lack the capability to conduct trade-off analyses for different investment levels.

Thus, there is a need for tools that would enable engineering-economic analyses of decisions such as the following: the economically preferred investment option; effects of deferred versus preventative maintenance; tradeoffs between capital improvements and system preservation; the appropriate threshold between maintenance and rehabilitation; and analyses of risk. The tools would (1) promote and enhance asset management within transportation agencies; (2) to the greatest extent possible, be compatible with existing management systems; and (3) provide a quick, low-cost, low-risk way of strengthening an agency's analytic toolbox for identifying, recommending, and evaluating investment decisions in the agency's assets. They would also take advantage of, and build upon, current research such as NCHRP Projects 08-36/Task 7, "Development of a Multimodal Tradeoffs Methodology for Use in Statewide Transportation Planning," and 20-24(11), "Asset Management Guidance for Transportation Agencies." (continued on Pg. 12)

2003 TRB Annual Meeting Performance Measurement Sessions				
Session	Function Title	Hotel	Day	Time
237*	Making Decisions with Performance Measures (Poster Session)	Hilton	Monday 1-13-03	9:00AM - 12:00PM
365*	Developing Transportation System Performance Measures	Hilton	Monday 1-13-03	7:30PM - 9:30PM
484	Performance Measures in Highway Maintenance, Part 1 (Part 2, Session 529)	Marriott	Tuesday 1-14-03	1:30PM - 3:15PM
529*	Performance Measures in Highway Maintenance, Part 2 (Part 1, Session 484)	Marriott	Tuesday 1-14-03	3:45PM - 5:30PM
573	Asset Management, Performance Measurement, and Operations: It Costs too Much to Change so We Don't	Hilton	Tuesday 1-14-03	7:30PM - 9:30PM
580*	Performance Measures for State Department of Transportation Chief Executive Officers	Hilton	Tuesday 1-14-03	7:30PM - 9:30PM
692*	Performance Measurement: Applications for Public Transit Performance Measures for Metro and Statewide Planning, Part 1 (Part 2, Session 720, Part 3, Session 746)	Hilton	Wednesday 1-15-03	2:30PM - 4:00PM
720*	Performance Measurement: Experiences in Development, Application, and Planning Integration for Metropolitan Planning Agencies, Part 2 (Part 1, Session 692; Part 3, Session 746)	Hilton	Wednesday 1-15-03	4:30PM - 6:00PM
746*	Performance Measurement: Performance Measures in Statewide Planning, Part 3 (Part 1, Session 692; Part 2, Session 720)	Hilton	Wednesday 1-15-03	7:30PM - 9:30PM
	A5022- Committee on Performance Measurement	Hilton	Wednesday 1-15-03	8:00AM - 12:00PM
* Sponsored by A5022 Committee on Performance Measurement				

These tools should incorporate key engineering, economic, financial, policy, and management factors as appropriate to the particular problems being addressed. They should be easily adaptable by different agencies. If a software tool is proposed, it should be developed in a format that is in general use, and not require unique, specialized hardware or software platforms.

The remainder of the project description can be found at the following link:

<http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+20-57>

National Cooperative Highway Research Program - Active Project

Project 20-24(20), FY

Using Performance Measures to Manage Change in State Departments of Transportation

State departments of transportation are operating in an environment of unprecedented change. Evolving demands for transportation services, new technologies, workforce composition, stakeholders' concerns, and a constantly changing political environment create continuing demands for institutional change. To address these challenges, the role of strategic planning is increasing in significance and importance. However, many CEOs find that the process often breaks down in the implementation phase -- creating buy-in and "institutionalization" of key changes. In response,

DOTs are employing innovative solutions such as an increased focus on stakeholder consultation and customer needs, targeting resources to achieve strategic objectives, setting performance goals, and implementing appropriate performance measurement systems to evaluate success. NCHRP Synthesis 238 (1997) identified a wide range of performance goals in use by state DOTs. NCHRP Report 446 presented a "Guidebook for Performance-Based Transportation Planning." A current NCHRP Project 20-53 is examining ways that DOTs use customer needs to drive transportation decisions. A recent scan conducted under NCHRP Project 20-24(14) identified a number of examples where DOTs were effectively integrating the use of performance measures into the management and strategic planning process. The research clearly suggests that performance measures are perceived as more useful when they are created out of a genuine commitment to manage programs more effectively, rather than simply to comply with reporting requirements. There is a need to review existing literature and current best practices in order to provide CEOs with concise, practical guidance on performance measures and their use.

The remainder of the project description can be found at the following link:

[http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+20-24\(20\)](http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+20-24(20))

-Announcements/Feedback-

Guidelines for developing ITS Data Archiving Systems Booklet available.....

Booklets providing some guidelines for developing ITS data archiving systems are available at the following address via the FHWA office of operations. Interested parties should contact Vince Pearce, e-mail: vince.pearce@fhwa.dot.gov.

Minutes of the Second PMAC Meeting Released

The Performance Measurement Advisory Council (PMAC) held its second meeting on September 13. Among the issues discussed were: how performance information should be made available, how the PART score should be converted into program assessments, and what information from the PART should be shown in the Budget and where it should be shown.

To read the minutes of the meeting, go to:

http://www.whitehouse.gov/omb/budintegration/print/pmac_draft_minutes091302.html

Transportation Performance Evaluation in the “Online TDM Encyclopedia”

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The VTPI *Online TDM Encyclopedia* is a comprehensive information resource to help transportation professionals identify, evaluate and implement innovative transportation management strategies. It is available free through the Internet at www.vtpi.org.

-Todd Litman

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